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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,552	11/28/2003	Andrew A. Kostrzewski	100.092/DIV	3282

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EXAMINER

CHAWAN, SHEELA C

ART UNIT PAPER NUMBER

2624

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,552

Applicant(s)

KOSTRZEWSKI ET AL.

Examiner

Sheela C. Chawan

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/28/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The Examiner has approved drawings filed on 11/28/03.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 11/28/03, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C.102 (b) as being anticipated by Horner et al., (US4, 588,260, Listed in IDS filed on 11/28/03).

As per claim 1, Horner discloses an authentication system comprising:

an input (note, CCD camera is used for verification of the authentication of the pattern or object in the form of phase mask, fig 1, column 1, lines 43-61) carried by an object (column 1, lines 43- 61);

a reference against which the input is correlated (note, comparing object phase mask with a reference phase mask in an optical processor, column 1, lines 63- 67, column 2, lines 1-3, column 2, lines 60 - 67, column 4, lines 13- 22); and

a correlator that correlates the input against the reference to verify whether the input is authentic (note, comparing object phase mask with a reference phase mask in an optical processor. The reference phase mask having a high degree of phase correlation with respect to object related phase mask (column 4, lines 13-22).

As per claim 2, Horner discloses the authentication system wherein one of the input and the reference comprises a phase volume mask having a plurality of pairs of phase volume structures (column 5, lines 5-18).

As to claim 3, Horner the authentication system wherein the other of the input and reference comprises a spatial light modulator (column 7, lines 49 –68, column 8, lines 1- 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horner et al., (US4,588,260, Listed in IDS filed on 11/28/03), as applied to the claims above and further in view of Saito et al., (US. 5,668,648).

Regarding claim 4, Horner discloses optical correlation systems by providing a method of producing a phase - only optical filter for use within a phase - only optical correlation system. Horner is silent about spatial light modulator comprises a liquid crystal panel having an array of pixels each of whose phase can be selectively varied.

Saito discloses computer – assisted holographic display apparatus. The system comprises of:

spatial light modulator comprises a liquid crystal panel having an array of pixels each of whose phases can be selectively varied (column 1, lines 13-31, column 5, lines 28- 51, column 13, lines 6- 39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Horner to include spatial light modulator comprises a liquid crystal panel having an array of pixels each of whose phase can be selectively varied. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Horner by the teaching of Saito because the precision of light modulation can be enhanced and the quality of the reproduced image can be enhanced (as suggested by Saito at column 13, lines 14-18).

As to claim 5, Saito discloses the authentication system further comprising a processor operably connected to the liquid crystal panel for controlling the phase of each of its elements (fig 1, column 5, lines 28- 51).

Allowable Subject Matter

5. Claims 6- 20, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pu et al., (US.5,933,515) discloses user identification through sequential input of fingerprints.

Pu et al., (US. 6,229,906 B1) discloses biometric sequence codes.

Fujiwara (US.6, 185, 319 B1) discloses fingerprint input apparatus.

Soon (US. 6,424,729 B1) discloses optical fingerprint security verification using separate target and reference planes and a uniqueness comparison scheme.


Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2624
June 29, 2006


SHEELA CHAWAN
PRIMARY EXAMINER